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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/675,280 07/01/96 WEBER

R TI-19646.1

QM02/0802

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EXAMINER

ATKINSON, C

ART UNIT

PAPER NUMBER

3743

DATE MAILED:

08/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/675,280

Applicant(s)

Weber et al.

Examiner

Atkinson

Group Art Unit

3743

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 6/22/01; 9/25/2000
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-2, 7-8, 17-22 and 25-31 is/are pending in the application.
Of the above claim(s) 29 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-2, 7-8, 17-22, 25-28 and 30-31 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Response to Amendment

In view of applicant's arguments filed 6/21/2001, claims 1-2, 7-8, 17-22 and 25-28 and 30-31 will be examined.

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim 29 remains withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

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© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed specification fails to disclose the device of claims 26 and 31.

The amendment filed 9/25/2000 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is the proposed addition to the specification of page 7 between lines 16 and 17.

Applicant is required to cancel the new matter in the reply to this Office action.

Claim Rejections - 35 USC § 112

Claims 26 and 31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to disclose the device of claims 26 and 31.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-27 and 30-31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Telkes.

The patent of Telkes, in Figure 4, discloses applicant's claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claim 1-2, 7-8, 17-22 and 28 are rejected under 35 U.S.C. § 103 as being unpatentable over Telkes in view of Voorhes et al. The patent of Telkes discloses all the claimed features of

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the invention with the exception of a portion of the enclosure/wall including a composite of highly thermally conductive fibers disposed in a matrix.

The patent of Voorhes et al., in at least Figure 11d, discloses that it is known to have a wall including a composite of highly thermally conductive graphite fibers disposed in a matrix for the purpose of increasing the thermal conductivity of the wall. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Telkes a portion of the enclosure/wall including a composite of highly thermally conductive graphite fibers disposed in a matrix for the purpose of increasing the thermal conductivity of the wall as disclosed in Voorhes et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed phase change material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 21-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Telkes in view of Voorhes et al. as applied to claims 1-2, 7-8, 17-20 and 28 above, and further in view of Hayes or Alspaugh. The patent of Telkes discloses all the claimed features of the invention with the exception of the specifically claimed phase change material.

The patents of Hayes and Alspaugh discloses that it is well known to have a heat storage phase change material being a wax for the purpose of having a large thermal storage capacity per unit weight or volume of storage medium. It would have been obvious at the time the invention

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was made to a person having ordinary skill in the art to employ in Telkes as modified, the phase change material being a wax for the purpose of having a large thermal storage capacity per unit weight or volume of storage medium as disclosed in Hayes or Alspaugh.

Response to Arguments

Regarding applicant's concerns directed toward the claims, a new ground of rejection has been given above. The device of the combination of Telkes and Voorhes et al. as stated above is believed to teach the claimed invention.

Applicant's concerns directed toward the device of claims 26 and 31 are not found persuasive. First, the examined claims do not read on the embodiment of Figure 1 since this non-elected species is abandoned per the Board of Appeals Decision. Only the non-elected embodiment (i.e. Figure 1) on page 7 of applicants originally filed specification does it state that the PCM 7 partially or fully fills the remainder of the cavity. Nowhere in the originally filed specification does it state that the elected embodiments' (i.e. Figure 2) cavity can be fully filled with the PCM 27. However, Figure 3 of applicant's application does show a gap between the phase change medium (27) and the plate (21). Therefore, contrary to the device of claims 26 and 31, the phase change medium (27) as illustrated in Figure 3 **can** slide or move within the cavity (i.e. enclosed internal space). Also, when the phase change medium changes from a solid phase to a liquid phase, the phase change medium again can and will flow or move within the cavity since nowhere in the originally filed specification does it state that the elected embodiments' (i.e. Figure 2) cavity can be fully filled with the PCM 27.

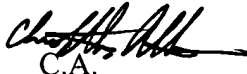
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Applicant's concerns directed toward Telkes are not found persuasive. Telkes, in Figure 4 and in column 4, lines 9-10 and 43-51, is believed to anticipate applicant's claimed invention since Telkes states glass is a material which has a suitable heat-conductivity and it therefore read as a heat transfer material. Also, the matrix 14' is coupled physically to the wall in view of Telkes stating the matrix "will not settle to the bottom".

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

July 31, 2001

CHRISTOPHER ATKINSON
PRIMARY EXAMINER